

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-37. (Canceled)

38. (Currently amended) A ~~carbon-containing surface~~ treated polymer comprising:

(a) a polymer surface, wherein the polymer is selected from the group consisting of ~~polycarbonate, polymethyl methacrylate, polystyrene, an acetal plastic,~~ polyethylene, polypropylene, polyester~~ethylene~~ terephthalate, and polytetrafluoroethylene;

(b) spacer chains covalently bound to the polymer surface, the spacer chains formed by reacting molecules selected from the group consisting of epichlorohydrin, epibromohydrin, epifluorohydrin, ~~1,4-butanediol diglycidyl ether~~ and combinations thereof with the polymer surface; and

(c) biomolecules covalently bound to the spacer chains.

39. (Original) A surface treated carbon-containing nanotube or nanoparticle comprising:

(a) a carbon-containing nanotube or nanoparticle;

(b) spacer chains covalently bound to the nanotube or nanoparticle; and

(c) biomolecules covalently bound to the spacer chains;

wherein the spacer chains are formed from molecules selected from the group consisting of dialdehyde molecules, anhydride molecules, dichloride molecules, epihalohydrin molecules, diepoxide molecules and combinations thereof.

40. (Original) A surface treated diamond-like carbon film comprising:

- (a) a diamond-like carbon film;
- (b) spacer chains covalently bound to the diamond-like carbon film; and
- (c) biomolecules covalently bound to the spacer chains;

wherein the spacer chains are formed from molecules selected from the group consisting of dialdehyde molecules, anhydride molecules, dichloride molecules, epihalohydrin molecules, diepoxide molecules and combinations thereof.

41. (Original) The diamond-like carbon film of claim 40, wherein the diamond-like carbon film is disposed on a substrate.

42. (Currently amended) The ~~carbon-containing substrate~~ polymer of claim 38, wherein the one or more spacer chains have a length of at least 2.5 nm.

43. (Canceled)

44. (Previously presented) The surface-treated diamond-like carbon film of claim 40, wherein the spacer chains have a length of at least 2.5 nm.

45. (Previously presented) The surface treated carbon-containing a nanotube or nanoparticle of claim 39, wherein the spacer chains have a length of at least 2.5 nm.

46. (Currently amended) The ~~carbon-containing surface~~ polymer of claim 38, wherein the one or more spacer chains have a length of at least 4 nm.

47. (Currently amended) The ~~carbon-containing surface~~ polymer of claim 38, wherein the one or more spacer chains have a length of at least 5 nm.

48. (Currently amended) The ~~carbon-containing surface~~ polymer of claim 38, wherein the one or more biomolecules are proteins.

49. (Currently amended) The ~~carbon-containing surface polymer~~ of claim 38, wherein the one or more biomolecules are enzymes.

50. (Currently amended) The ~~carbon-containing surface polymer~~ of claim 38, wherein the one or more biomolecules are oligonucleotides.

51. (Canceled)

52. (Canceled)

53. (Previously presented) The carbon-containing nanotube or nanoparticle of claim 39, wherein the spacer chains are bound to the nanotube or nanoparticle by reacting molecules selected from the group consisting of epichlorohydrin, epibromohydrin, epifluorohydrin, 1,4-butanediol diglycidyl ether and combinations thereof with the nanotube or nanoparticle.

54. (Previously presented) The diamond-like carbon film of claim 40, wherein the spacer chains are bound to the diamond-like carbon film by reacting molecules selected from the group consisting of epichlorohydrin, epibromohydrin, epifluorohydrin, 1,4-butanediol diglycidyl ether and combinations thereof with the diamond-like carbon film.